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Practitioner's Docket No. 20434-752

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Islam)
Serial No.: Not assigned) Group No.: Not assigned
Filed: herewith) Examiner: Not assigned
For: Multi-Stage Optical Amplifier and)
Broadband Communication System)

Assistant Commissioner for Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Please take the following amendments into consideration before examination on the merits.

In the Cross Reference to Related Applications:

Please amend as follows:

-- This application is a continuation of U.S. Application Serial No. 09/471,753, filed December 23, 1999, which is a continuation-in-part of Provisional Application Serial No. 60/089,726, filed June 16, 1999, and a continuation-in-part of Application Serial No. 09/471,753, filed December 23, 1999. --

In the Claims:

Please add the following claims:

1. A multi-stage optical amplifier, comprising:
- an optical fiber including a first length of Raman amplifier fiber and a second length of Raman amplifier fiber, the optical fiber configured to be coupled to a signal source that produces a plurality of signal wavelengths λ_s and a pump source that produces one or more pump wavelengths λ_p , wherein the one or more pump wavelengths λ_p are less than at least a portion of the plurality of signal wavelengths λ_s , at least a portion of the plurality of signal wavelengths λ_s of the first Raman amplifier fiber having an optical noise figure of less than 8 dB and less than an optical noise